Gas supply in the face of the energy crisis in Europe

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Gas security of supply is not something new

What would one purchase on the eve of a strict lockdown due to a pandemic?
Timeline of EU reaction to the energy crisis (I)(1)

The early stage: Q4’21

- 22 Sep 2021: Energy ministers call on Commission to analyse energy price surge
- 21 Oct 2021: EU leaders tackle energy price surge
- 26 Oct 2021: Energy Council addresses rising energy prices
- 8 Nov 2021: Eurogroup discusses energy prices
- 2 Dec 2021: EU ministers address energy price surge
- 16 Dec 2021: European Council discusses energy price hike

- **Tension in the European gas market already evident in Q4’21**, with the price of TTF spiking above 180 €/MWh in late December
- **Companies** start to take measures to avoid cash outflows due to margin calls
- **EU “discussing the energy price surge”:** no clear strategy to address the underlying problem: potential disruptions in gas supply

Timeline of EU reaction to the energy crisis (II)\(^{(1)}\)

<table>
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<th>First half of 2022: EU reacts</th>
<th>Event</th>
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<tr>
<td>24 Feb 2022</td>
<td>EU leaders call for emergency measures on energy</td>
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<tr>
<td>28 Feb 2022</td>
<td>Energy ministers discuss energy market situation following Ukraine crisis</td>
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<tr>
<td>11 Mar 2022</td>
<td>EU leaders agree on how to reduce energy dependencies</td>
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<td>2 May 2022</td>
<td>Energy ministers discuss gas supply following Gazprom's delivery suspension</td>
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<td>19 May 2022</td>
<td>Gas storage: Council and Parliament reach a provisional agreement</td>
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<td>27 Jun 2022</td>
<td>Regulation on gas storage adopted and REPower EU plan drafted</td>
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- Russia’s invasion of Ukraine is unacceptable for the EU, but **Russia is the EU’s main supplier of fossil fuels**: 54% of coal, 43% of gas, 29% of oil
- **The EU finally reacts**, and starts to **prepare for the coming winter**, requiring member states to fill gas underground storage facilities to 80% by Nov 1\(^{\text{st}}\)
- Prices steadily rise at the end of Q2’22 as companies and governments increase LNG imports

Timeline of EU reaction to the energy crisis (III) (1)

Q3’22: store and save gas for winter

- **26 Jul 2022**: Member states commit to reducing gas demand by 15% next winter
- **5 Aug 2022**: Council adopts regulation on reducing gas demand by 15%
- **9 Sep 2022**: Ministers review progress on winter preparedness
- **30 Sep 2022**: Council agrees on emergency measures to reduce energy prices

- In addition to EU’s measures, European governments take swift measures to **reduce dependence on Russian gas** and **increase their import LNGs**
- Particularly, **Germany orders 5 FSRUs** with the aim of covering one third of its gas demand
- **Efforts are channelled through private companies** that have the required market and technical expertise
- As Russian gas imports decline, **LNG imports surge** and **gas is pumped into underground storages at a fast pace**, driving gas prices above 300 €/MWh

Response to the energy crisis at all levels

**Reaction of the EU**
- No material reaction until Russia’s invasion of Ukraine, maybe hoping that Russia would follow the advice of European leaderships?
- After the invasion, dramatic change in the EU stance, with a clear reaction against the invasion and identifying energy security of supply as a major risk
- First priority: prepare for next winter with targets in terms of gas storage (Nov 1st deadline) and gas demand reduction

**Reaction of member states**
- Germany’s reaction probably the most visible, e.g.:
  - 5 FSRUs contracted for winter and onshore regasification projects launched
  - Gazprom’s underground storage facilities seized and filled at full speed
  - Bail out and nationalization of energy companies whose default would compromise even more Germany’s security of supply
- Additionally, many member states have provided relief to companies and households in an attempt to shield them from high energy prices

**Reaction of companies and individuals**
- High gas prices in Europe have attracted unprecedented imports of LNG by private companies facilitating the storage of gas for winter
- Industrial and domestic demand have experienced double-digit reductions throughout Europe as a response to high gas prices

Increase of LNG imports to Europe in 2022

Russian gas is substituted with LNG, small gains from other suppliers

Source: Axpo, Alex Pashley, “European gas outlook”
Lower Asian demand free up LNG for EU

Source: Axpo, Alex Pashley, “European gas outlook”
Price-induced demand destruction: energy saved

Source: Axpo, Alex Pashley, “European gas outlook”
EU gas storage 80% target met 2 months early

Source: Axpo, Alex Pashley, “European gas outlook”
New LNG terminals coming

- Start up of German terminals Brunsbuettel, Wilhelmshaven expected late Dec, early Jan critical for Q1
- Quick commissioning of Eemshaven FSRU in Netherlands grounds for some confidence

Source: Axpo, Alex Pashley, “European gas outlook”
Europe unlikely to run out of storage this winter

Source: Axpo, Alex Pashley, “European gas outlook”
But refilling for next winter will be challenging

Source: Axpo, Alex Pashley, “European gas outlook”
Liquidity shifting from exchanges to OTC

Source: Axpo, Alex Pashley, “European gas outlook”
The cost and risk of providing relief(1)

The theory of relief: the 3 T’s
- **In theory**, relief provided by governments to companies and households should comply with the 3 T’s: **temporary**, **targeted**, **timely**
- **Easier said than done**: high energy prices will last for **years** with a **widespread impact**

What is being done in practice
- **EU governments have pledged more than €550bn** to shield their economies from energy bills. This climbs to **€710bn when including support for utilities**
  - Member states have already spent c. **€200bn**
  - The EU Commission considers that c. 70% of measures are untargeted
- Providing **generalized relief is against the ECB’s efforts to cool consumer prices**
- Some specific figures: Germany ⇝ **€200bn**, France ⇝ **€100bn**, Italy ⇝ **€75bn**

The risk of going too far
- **UK has recently shown that confidence of international investors has its limits**
- 10y ago, the **real estate bubble** put many financial institutions on the verge of bankruptcy and **led to a sovereign debt crisis**, with some state members facing huge credit spreads
  - Having lost the ability to devaluate their currencies, these member states had to undergo several years of high unemployment in order to recover their competitiveness
- **EU institutions, companies and citizens have to adapt to high energy prices** in parallel with high interest rates. **Relief must be limited to the most vulnerable**

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(1) Bloomberg, “Spending big and badly shows energy crisis risks for Europe”
The uncertain coming years

Tailwinds in 2022 that are unlikely to persist

- Filling EU storages over the summer of 2022 benefitted from factors that might not be repeated in 2023:
  - 30 bcm of Russian gas supplied to the EU via pipeline
  - Lower LNG imports by China due to economic slowdown and Covid-induced lockdowns

- Current mild temperatures are delaying the withdrawal from gas storages, which means more gas available for the rest of the winter or even the next winter

Specific challenges to be faced

- Global LNG supply is expected to increase by only 20 bcm in 2023, much less than the likely additional reduction in Russian pipeline deliveries
- China’s LNG imports could rebound next year to close to their 2021 levels. This would capture over 85% of the expected increase in global LNG supply
- If Russian pipeline gas supplies to the EU cease completely and Chinese LNG imports recover to 2021 levels, Europe could face a supply-demand gap of 30 bcm during the key summer period for refilling gas storage in 2023
  - This gap could represent almost half the gas required to fill storage sites to 95% capacity by the start of the 2023-24 heating season

(1) IEA, “Never Too Early to Prepare for Next Winter: Europe’s Gas Balance for 2023-2024”
Ideas for discussion (I)

• In 2021, high gas prices were the symptom of a threat to security of supply: the problem were not high prices but energy dependence on Russia
• In 2022, high prices have helped Europe to get ready for winter, attracting LNG imports and driving a reduction in demand
• The forward curve is now mostly flat from Jan’23 to Dec’23 showing that the gas that Europe saves this winter will be available for next winter

• The theory behind marginal pricing (to produce the right power generation capex incentives) is questionable if:
  – Investing in nuclear or large hydro is not possible
  – There are bottlenecks to invest on renewables and power grid expansion

• As tough as 2022 may seem, the coming years will be more challenging.
• EU must provide a consistent and coordinated regulatory response to this challenging crisis, and avoid unnecessary market intervention
• Opportunity to focus efforts on accelerate investment on renewables and in parallel reinforce conventional energy security of supply
• The European gas market has worked, but has unveiled deficiencies in the energy policy of member states and in the risk and financial policy of energy companies
Ideas for discussion (II)

- Many **European governments** have provided some form of **support to their most relevant energy companies** to mitigate the risk of supply disruptions
  - Companies with Gazprom contracts have suffered huge losses
  - Companies with short positions in exchanges have seen massive cash outflows
- **Are energy companies too relevant to fail?** Is this similar to the financial crisis?

**The B/S of energy companies has to be stronger**

- As with banks in the financial crisis, the energy crisis has shown that **energy companies were assuming risks that their B/S were not prepared for**, e.g.:
  - **Long-term contracts** with low prices but with **unreliable counterparties**
  - Significant **short positions in exchanges** to hedge long positions in energy markets
- **Energy companies** play a **social role** that makes them **too relevant to fail**
  - Bail-outs or nationalizations not the solution: more private capital is required
- **Path followed by banking sector**: stricter supervision, capital requirements, consolidation